

Technical Coordinating Committee (TAC)

Wednesday, August 24, 2022, 2:30 PM WPCOG Offices—1880 2nd Ave NW

wpcog.org/metropolitan-planning-org

Greater Hickory Metropolitan Planning Organization

Agenda Item	Presenter	Attachment	Action
Call to Order / Introductions	Bruce Eckard		
Minutes of June 22, 2022 Meeting	Bruce Eckard	Attachment I	Approve Minutes
Transportation Improvement Program Revisions for Approval	Averi Ritchie	Attachment II	Adopt by Resolution
Transportation Improvement Program Revisions for Locally Administered Project Program (LAPP)	Averi Ritchie	Attachment III	Adopt by Resolution
New Transportation Improvement Program (TIP) Revisions for Public Comment	Averi Ritchie	Attachment IV	Release for Public Comment
Revised 2024-2033 Draft State Transportation Improvement Program (STIP)	Averi Ritchie	Attachment V	Discussion Item
Aviation Chapter for 2050 MTP	Duncan Cavanaugh	Attachment VI	Discussion Item
NCDOT Updates			
Division 11	Sean Sizemore		
Division 12	Anil Panicker	Project Updates	
Division 13	Hannah Cook	Project Opdates	
Transportation Planning Division	James Upchurch		
Integrated Mobility Division	Alexius Farris		
Public Comment / Announcements	Bruce Eckard		
Adjournment Next Meeting: September 28, 2022	Bruce Eckard		



GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION (MPO)

1880 2nd Avenue NW, PO Box 9026 Hickory, NC 28603



MINUTES

GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION (GHMPO)

METROPOLITAN TRANSPORTATION ADVISORY COMMITTEE (TAC) Wednesday, June 22, 2022, 2:30 pm, In-person meeting and via Zoom

Present			Absent		
First Name	Last Name	Representing	First Name	Last Name	Representing
Barbara	Beatty	Catawba County	Barry	Mitchell	Town of Hudson
Brad	Lail	Board of Transportation – Div. 12	Bob	Sigmon	Town of Maiden
Bruce	Eckard	City of Conover	Donald	Robinson	Town of Catawba
Hank	Guess	City of Hickory (1 of 2)	Ralph	Prestwood	City of Lenoir
Jerry	Hodge	City of Newton	Randall	Mays	Town of Long View
Jill	Patton	City of Hickory (2 of 2)	Richard	Andrews	Town of Cajah's Mountain
Jody	York	Town of Hildebran			
Joyce	Kam	Town of Rhodhiss	VACANT		Brookford
Kim	Angel	WPRTA	VACANT		Caldwell County
Larry	Yoder	Alexander County	VACANT		Cedar Rock
Les	Morrow	City of Claremont	VACANT		Connelly Springs
Martin	Townsend	Town of Granite Falls	VACANT		Drexel
Maynard	Taylor	Burke County	VACANT		Gamewell
Rexanna	Lowman	Town of Valdese	VACANT		Glen Alpine
Wendy	Cato	City of Morganton	VACANT		Rutherford College
			VACANT		Sawmills
WPCOG		d of Transportation, & Guests		NC	DOT Staff
		tarr - WPCOG		Sean Siz	emore – Div. 11
	Alison Ada	ims – WPCOG		Mark Sta	afford – Div. 12
	Averi Ritc	hie – WPCOG		Anil Par	nicker – Div. 12
	Beth Heile – W	PCOG (Contractor)		Dean Led	dbetter – Div. 12
	Brian Hor	ton – WPCOG		Michael	Poe – Div. 12
	Jess Ode	tte – WPCOG		Tim And	erson – Div. 13
				Chris G	uffey – Div. 13
	Loretta Ba	arren – FHWA		Hannah	Cook – Div. 13
				Marshall W	/illiams – Div. 13d
An	dy Wells - Board o	f Transportation At-Large		Stephen	Sparks – Div. 13
				Pam	Cook – TPD
				James L	Jpchurch - TPD
				Alexius	s Farris – IMD

Call to Order and Introductions – Chair Eckard called the meeting to order and welcomed all present at 2:32 PM. Introductions were made around the room. Kim Angel, Wendy Cato, and Rexanna Lowman joined the meeting remotely via Zoom. Upon a motion by Mr. Hodge and a second by Ms. Patton, the TAC unanimously approved remote participation of the listed TAC members. Acting Chair Guess reminded members of Ethics Awareness.

Technical Coordinating Committee (TCC) Report – Mr. Horton informed members that all items from the prior TCC meeting had been unanimously recommended to TAC, though there was some discussion of possible revisions to Item VII, which Mr. Horton would mention later when presenting that agenda item.

Action Items:

I. Approval of Minutes – Chair Eckard asked members if they had a chance to review the minutes. Upon a motion from Mr. Townsend and a second by Mr. Hodge, the TAC unanimously approved the minutes from their May 25, 2022, meeting.

- II. Transportation Improvement Program (TIP) Revision for Board of Transportation Mr. Horton presented new TIP revisions to be released for public comment and noted that no comments had been received. Upon a motion by Mr. Taylor and a second by Mr. Yoder, the unanimously approved releasing Attachment II for public comment.
- III. Transit Safety Targets Mr. Horton noted that MPO adoption of transit safety targets consistent with a Public Transportation Agency Safety Plan was required annually by the federal government. Mr. Horton presented the actual and target performance indicators respectively for calendar years 2021 and 2021. Mr. Guess noted that Item III was not in the mailed packet. Mr. Horton provided printed copies. Upon a motion by Mr. Eckard and a second by Ms. Patton, the TAC unanimously approved Attachment III by resolution.
- IV. Federal Certification Review Ms. Barren gave an overview of the recent combined certification review completed by FHWA and FTA. Ms. Barren summarized the key recommendations in the report, which included some carried over from the prior report. Ms. Barren noted that the MPO should have more time to address some of the prior recommendations, given that this latest review occurred within two years, instead of the normal four years. As this was an information item, no action was needed.
- V. Locally Administered Project Program (LAPP) Project Applications Mr. Horton presented the five new LAPP applications submitted by May 27, 2022, by three local governments (Hickory, Lenoir, Maiden) for five projects totaling \$9,953,000 in STBG-DA funding and \$2,388,400 in TAP-DA funding. Upon a motion by Mr. Guess and a second by Ms. Patton, the TAC unanimously approved Attachment V by resolution.
- VI. TIP Revisions for LAPP Projects Mr. Horton presented the new TIP revisions supporting the four new and one revised (supplemental) LAPP projects to be released for public comment. Upon a motion by Mr. Eckard and a second by Ms. Patton, the TAC unanimously approved releasing Attachment VI for public comment.
- VII. Highway Plan Scenario for the 2050 MTP - Mr. Horton reminded TAC members of the more fiscally constrained scenario that would match projected revenues to the eligible transportation facility miles in each of the three STI or Prioritization funding pots. Mr. Horton then showed what a minimum highway plan scenario applying this more constrained revenue projection. Mr. Horton also compared how various projects that are in the adopted 2045 MTP would then not be in the 2050 MTP, if that minimum scenario held. Various TAC members discussed the project implications of this more constrained scenario. Ms. Cook noted that any project in the unconstrained CTP would still be eligible to be submitted in P-7.0, even if not including through the 2050 horizon of the MTP. Mr. Taylor asked about revenue in the event fuel tax receipts decline, to which Mr. Horton replied the draft scenario assumed sustained revenue levels irrespective of sources, like fuel taxes or mileage fees. Mr. Lail recommended looking at historic funding levels. Mr. Ledbetter warned that the latest costs of delivery projects were much higher than when the projects were first prioritized. Mr. Starr noted that a population share would be higher than the facility miles share shown. Mr. Wells commented that even this more constrained scenario seemed overly optimistic. As this was an information item, no action was needed.

NCDOT Update -

- NC Board of Transportation Mr. Lail noted the volunteer-based user-mileage pilot program. Mr. Wells commented on the need for flexibility to adapt to a volatile future.
- **Division 11** Mr. Sizemore noted no changes since his report last month.
- **Division 12** Mr. Poe presented in lieu of Mr. Stafford. Ms. Beatty asked about spraying roadway edges and the completion date of NC 16. Mr. Poe replied that the

- chemicals used were different from household weed killers and that NC 16 was expected to be completed in August 2022.
- **Division 13** Ms. Hannah Cook introduced Mr. Anderson as the new Division Engineer. Mr. Anderson noted his prior work in the region.
- NCDOT-TPD Ms. Pam Cook shared her update via the TPD Newsletter. Ms. Pam
 Cook also shared that she had taken a new assignment covering other areas of the
 state. She remarked how much she would miss everyone and how she enjoyed her
 many years of serving the area.
- **NCDOT-IMD** Ms. Farris noted the upcoming announcement of grant awards for bicycle and pedestrian plans.

Public comments or announcements: Mr. Horton announced that he had accepted a new role in Charlotte starting July 11. Mr. Horton shared his appreciation for the time spent leading GHMPO and the experience gained working with area local governments and NCDOT. Mr. Horton announced that Ms. Ritchie had been named his interim successor. Ms. Ritchie announced upcoming meetings with local government staff to review population and employment projections.

Adjournment – As there was no other business, Chair Eckard adjourned the TAC at 3:35 PM. The next meeting is scheduled for August 24, 2022 at 2:30 PM

	Respectfully Submitted,	
Bruce Eckard, MPO/TAC Chair	Averi Ritchie, TAC Secretary	



GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION (MPO) 1880 2nd Avenue NW, PO Box 9026

Hickory, NC 28603



RESOLUTION ADOPTING MODIFICATIONS TO THE TRANSPORTATION IMPROVEMENT PROGRAM (TIP) FY 2020-2029

A motion was made bythe following resolution, and upon be	and seconded by	for the adoption of
the following resolution, and upon be	eing put to a vote was duly adopted	
WHEREAS, the following modification Improvement Program (TIP): See page 2 of this Attachment		020-2029 Transportation
WHEREAS , the MPO certifies that of the adopted 2045 Metropolitan Tr		tent with the intent
NOW THEREFORE be it resolved Committee (TAC) that the TIP FYs 2 August, 2022.	•	* . *
Bruce Eckard		
Greater Hickory MPO TAC Chair		
Averi Ritchie Greater Hickory MPO TAC Secretary	<u></u>	

REVISIONS TO THE 2020-2029 TIP HIGHWAY PROGRAM

GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION

		STIP MODIFICATIONS				
HA-0001 BURKE PROJ.CATEGORY EXEMPT	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	NEW ROUTE, CONSTRUCT ACCESS ROAD INTO BURKE COUNTY INDUSTRIAL PARK. TO ALLOW ADDITIONAL TIME FOR UTILITY RELOCATION, DELAY CONSTRUCTION FROM FY 22 TO FY 23.	CONSTRUCTION	FY 2023 - FY 2024	, , , , , , , , , , , , , , , , , , , ,	(ADHSL) (ADHSL)
R-5967 BURKE PROJ.CATEGORY EXEMPT	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	SR 1687 (GOAT FARM ROAD), IMPROVE EXISTING SR 1687 (GOAT FARM ROAD) ACCESS ROAD INTO THE PROPOSED INDUSTRIAL PARK. TO ALLOW ADDITIONAL TIME FOR PRELIMINARY ENGINEERING, DELAY CONSTRUCTION FROM FY 22 TO FY 23.	CONSTRUCTION	FY 2023 - FY 2023 - FY 2024 - FY 2024 -	\$383,000 \$495,000 \$863,000 \$1,116,000 \$2,857,000	(L) (ADHSL)

^{*} INDICATES FEDERAL AMENDMENT

for the adoption of



GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION (MPO) 1880 2nd Avenue NW, PO Box 9026

Hickory, NC 28603



RESOLUTION ADOPTING MODIFICATIONS TO THE TRANSPORTATION IMPROVEMENT PROGRAM (TIP) FY 2020-2029

A motion was made by _____ and seconded by _____ the following resolution, and upon being put to a vote was duly adopted.

WHEREAS, the Greater Hickory Metropolitan Planning Organization (MPO) is a Transportation Management Area and has the authority to direct available Federal Highway program Surface Transportation Block Grant – Direct Attributable (STBG-DA) and Transportation Alternatives Program – Direct Attributable (TAP-DA) obligation authority to MPO area local projects; AND
WHEREAS, allocation of STBG-DA obligation authority to enable work on five area priority projects to proceed totaling \$15,422,750 (\$9,953,200 in STBG-DA funds, \$2,385,000 in TAP-DA funds, and \$3,084,550 in local match), as shown in the Attachment V at the June 22, 2022, TAC Meeting; AND
WHEREAS, the proposed project recommendations and recommended actions have been developed in coordination with the North Carolina Department of Transportation; AND
WHEREAS , the Greater Hickory MPO Transportation Advisory Committee approved the direction of \$9,953,200 in STBG-DA funds and \$2,385,000 in TAP-DA funds at their meeting on the 22 nd day of June, 2022.
WHEREAS, the following modifications have been proposed for FY 2020-2029 Transportation Improvement Program (TIP): See page 2 of this Attachment
WHEREAS , the MPO certifies that these TIP modifications are consistent with the intent of the adopted 2045 Metropolitan Transportation Plan (MTP);
NOW THEREFORE be it resolved, by the Greater Hickory MPO Transportation Advisory Committee (TAC) that the TIP FYs 2020-2029 be modified as listed above on this, the 24 th day of August, 2022.
Bruce Eckard Greater Hickory MPO TAC Chair
Averi Ritchie Greater Hickory MPO TAC Secretary

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REVISIONS TO THE 2020-2029 STIP HIGHWAY PROGRAM

	GR	EATER HICKORY METROPOLITAN PLANNING ORGANIZ	ZATION			
		STIP MODIFICATIONS				
BL-0002 CALDWELL PROJ.CATEGORY DIVISION	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	US 321A (MAIN STREET) HUDSON, CONSTRUCT PEDESTRIAN CROSSING IMPROVEMENTS FROM SR 1952 (CEDAR VALLEY ROAD) TO SR 1156 (LEGION ROAD). TO ALLOW ADDITIONAL TIME FOR PRELIMINARY ENGINEERING, DELAY RIGHT-OF-WAY FROM FY 22 TO FY 23.	ENGINEERING RIGHT-OF-WAY CONSTRUCTION	FY 2022 - FY 2022 - FY 2023 - FY 2023 - FY 2023 - FY 2023 -	\$64,000 \$16,000 \$19,000 \$5,000 \$352,000 \$88,000 \$544,000	(L) (BGDA) (L) (BGANY)
EB-5808 BURKE CALDWELL CATAWBA PROJ.CATEGORY DIVISION	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	HICKORY, UPGRADE CURRENT PEDESTRIAN SIGNALS AND INSTALL NEW PEDESTRIAN SIGNALS. TO ALLOW ADDITIONAL TIME FOR PRELIMINARY. ENGINEERING. DELAY CONSTRUCTION FROM FY 22 TO FY 23.	CONSTRUCTION	FY 2023 - FY 2023	\$322,000 \$80,000 \$402,000	,
EB-5911 CATAWBA PROJ.CATEGORY DIVISION	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	OLD LENOIR ROAD MULTI-USE PATH, 9TH STREET NW TO HICKORY WATER PLANT. CONSTRUCT MULTI-USE PATH. TO ALLOW ADDITIONAL TIME FOR RIGHT-OF-WAY ACQUISITION, DELAY CONSTRUCTION FROM FY 22 TO FY 23.	CONSTRUCTION	FY 2023 - FY 2023	\$6,498,000 \$1,625,000 \$8,123,000	,
EB-5977 CATAWBA PROJ.CATEGORY DIVISION	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	9TH STREET NW CONNECTOR, CITY WALK TO OLD LENOIR ROAD IN HICKORY. CONSTRUCT MULTI-USE TRAIL ALONG 9TH STREET NW. TO ALLOW ADDITIONAL TIME FOR RIGHT-OF-WAY ACQUISITION, DELAY CONSTRUCTION FROM FY 22 TO FY 23.	CONSTRUCTION	FY 2023 - FY 2023	\$1,168,000 \$292,000 \$1,460,000	

^{*} INDICATES FEDERAL AMENDMENT

Thursday, August 11, 2022

REVISIONS TO THE 2020-2029 STIP HIGHWAY PROGRAM

GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION

		STIP MODIFICATIONS		
* HL-0004 CATAWBA PROJ.CATEGORY DIVISION	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	17TH STREET NW, CONSTRUCT ROADWAY EXTENSION FROM 9TH AVENUE NW TO SR 1371 (CLEMENT BOULEVARD NW). TO ALLOW ADDITIONAL TIME FOR PRELIMINARY ENGINEERING, DELAY RIGHT-OF-WAY FROM FY 22 TO FY 23 AND CONSTRUCTION FROM FY 23 TO FY 24.	CONSTRUCTION	FY 2023 - \$576,000 (BGDA) FY 2023 - \$144,000 (L) FY 2024 - \$3,840,000 (BGANY) FY 2024 - \$960,000 (L)
* R-3430B BURKE PROJ.CATEGORY HWY FUNDS	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	SR 1001 (CONNELLY SPRINGS ROAD), REPLACE BRIDGE 110010 OVER CATAWBA RIVER. TO ALLOW ADDITIONAL TIME TO OBTAIN ALL REQUIRED PERMITS. DELAY CONSTRUCTION FROM FY 23 TO FY 24.	RIGHT-OF-WAY UTILITIES CONSTRUCTION	FY 2022 - \$500,000 (HFB) FY 2022 - \$65,000 (HFB) FY 2024 - \$175,000 (HFB) FY 2025 - \$7,863,000 (HFB) FY 2026 - \$6,668,000 (HFB) FY 2027 - \$2,793,000 (HFB)
* U-5777 CATAWBA PROJ.CATEGORY REGIONAL	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	NC 127, 1ST AVENUE SE TO 2ND AVENUE SE. ADD TURN LANES. TO ALLOW ADDITIONAL TIME FOR PRELIMINARY ENGINEERING, DELAY CONSTRUCTION FROM FY 23 TO FY 25.	CONSTRUCTION	FY 2025 - \$1,280,000 (T) FY 2026 - \$2,521,000 (T) FY 2027 - <u>\$150,000</u> (T) \$3,951,000
		STIP DELETIONS		
* HL-0017 CATAWBA PROJ.CATEGORY DIVISION	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	2ND AVENUE SE, CONSTRUCT ROADWAY EXTENSION FROM LENOIR-RHYNE BOULEVARD TO 3RD AVENUE SE. INCLUDE INTERSECTION AND PEDESTRIAN IMPROVEMENTS. DELETE PROJECT AT THE REQUEST OF THE MPO.	RIGHT-OF-WAY CONSTRUCTION	FY 2022 - \$400,000 (BGANY) FY 2022 - \$100,000 (L) FY 2023 - \$1,360,000 (BGANY) FY 2023 - \$340,000 (L)
		STIP DELETIONS		
* RX-2011A CALDWELL PROJ.CATEGORY DIVISION	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	SR 1159 (PLEASANT HILL ROAD), CWCY CROSSING 729801L IN HUDSON. CONSTRUCT SAFETY IMPROVEMENTS. DELETE PROJECT AT THE REQUEST OF THE DIVISION.	CONSTRUCTION	FY 2023 - \$800,000 (RR) \$800,000

^{*} INDICATES FEDERAL AMENDMENT

Thursday, August 11, 2022

STIP MODIFICATIONS

* HO-0005 CABARRUS CATAWBA DAVIDSON DAVIE DURHAM EDGECOMBE FORSYTH GASTON GRANVILLE GUILFORD HAYWOOD IREDELL JOHNSTON MECKLENBURG NASH ORANGE ROWAN UNION WAKE PROJ.CATEGORY EXEMPT	- ROCKY MOUNT METROPOLITAN PLANNING ORGANIZATION - GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION - GASTON CLEVELAND LINCOLN URBAN AREA METROPOLITAN PLANNING ORGANIZATION - HIGH POINT URBAN AREA METROPOLITAN PLANNING ORGANIZATION - CABARRUS-ROWAN URBAN AREA METROPOLITAN PLANNING ORGANIZATIO - GREENSBORO URBAN AREA METROPOLITAN PLANNING ORGANIZATIO - WINSTON-SALEM URBAN AREA METROPOLITAN PLANNING ORGANIZATIO - DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATIO - CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION - CHARLOTTE REGIONAL TRANSPORTATIOI PLANNING ORGANIZATION - UPPER COASTAL PLAIN RURAL PLANNING ORGANIZATION - LAND OF SKY RURAL PLANNING ORGANIZATION - KERR TAR RURAL PLANNING ORGANIZATION	CONSTRUCTION	FY 2022 - \$5,360,000 (CMAQ) FY 2023 - \$5,828,000 (CMAQ) FY 2023 - \$1,457,000 (S(M)) FY 2024 - \$6,096,000 (CMAQ) FY 2024 - \$1,524,000 (S(M)) \$21,605,000

		STIP MODIFICATIONS			
R-5762 ALEXANDER PROJ.CATEGORY DIVISION	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	INTERSECTION OF NC 16 AND SR 1609 (COUNTY HOME ROAD). CONSTRUCT INTERSECTION TO ALLOW ADDITIONAL TIME FOR PRELIMINARY ENGINEERING, DELAY CONSTRUCTION FROM FY 22 TO FY 23.	RIGHT-OF-WAY CONSTRUCTION	FY 2022 - FY 2023 - FY 2024 -	\$120,000 (T) \$377,000 (T) \$123,000 (T) \$620,000
U-6035 CALDWELL PROJ.CATEGORY DIVISION	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	SR 1002 (DUDLEY SHOALS ROAD) AND SR 1751 (GRACE CHAPEL ROAD/CAMPGROUND ROAD)/SR 1752 (PEACH ORCHARD ROAD). CONSTRUCT ROUNDABOUT. TO ALLOW ADDITIONAL TIME FOR UTILITY RELOCATION, DELAY CONSTRUCTION FROM FY 22 TO FY 23.		FY 2023 - FY 2024	\$9,000 (T) \$916,000 (T) \$925,000

* INDICATES FEDERAL AMENDMENT

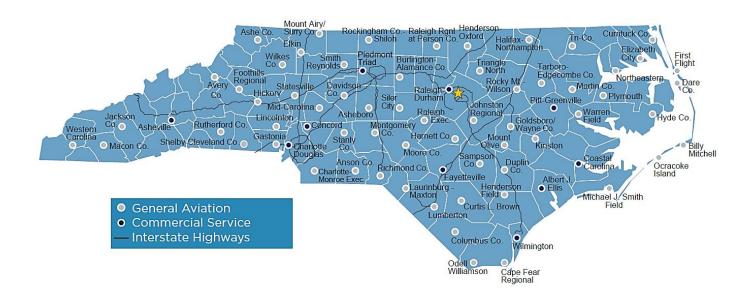
Thursday, July 7, 2022

XX. Aviation

Introduction

Airports are a critical part of North Carolina's transportation system, linking the state to the global economy and generating economic activity, commerce, and tourism. According to North Carolina, The State of Aviation (2021) from the North Carolina Department of Transportation's Division of Aviation, North Carolina's public airports annually contribute \$61 billion to the state's economy, supporting 373,000 jobs that generate \$15 billion in personal income and \$2.5 billion in state and local tax revenues.

Figure X-X. Commercial Service & General Aviation Airports in North Carolina.



 $Source: North\ Carolina, The\ State\ of\ Aviation, North\ Carolina\ Department\ of\ Transportation, Division\ of\ Aviation, 2021.$

At first glance it may seem that the only beneficiaries of airports are its pilots, but in fact airports perform a broad range of services that are directly linked to the economic well-being of the GHMPO region and the state. Table X-X provides an overview of several of these services.

Airports & The GHMPO Economy					
> Time-sensitive, high-value cargo/freight > Firefighting and medical emergency operation					
> Search and rescue	> Military				
> Agriculture	> Aerospace/drone industry				
> Tourism	> Education/flight instruction				

Airports are also directly linked to economic development opportunities. Airport access is often a key decision factor for businesses evaluating potential locations for a new facility or a corporate headquarters. Local businesses frequently want to operate their chartered or corporate aircraft using airports that are located within 45 minutes to an hour's drive from their offices. The presence of an airport within a community provides that community with a competitive advantage in attracting or retaining businesses.

Chart X-X. GHMPO Airports: Economic Impacts.

GHMPO Airports: Economic Impacts						
Airport	Jobs	Personal Income	State/Local Taxes	Economic Output		
Foothills Regional	90	\$3,660,000	\$509,000	\$10,020,000		
Hickory Regional	310	\$13,400,000	\$1,737,000	\$43,130,000		
Totals	400	\$17,060,000	\$2,246,000	\$53,150,000		

Source: North Carolina, The State of Aviation, North Carolina Department of Transportation, Division of Aviation, 2021.

Commercial Airline and Cargo Service

Although the Hickory Regional Airport has not had commercial airline service since 2006, the airport remains certificated by the Federal Aviation Administration (Part 139) for commercial aircraft operations. Keeping the Part 139 certificate is vitally important for the airport in its efforts to re-establish commercial airline service, because commercial airlines cannot provide scheduled service at airports that lack the certificate.

Ten airports in North Carolina provide commercial airline service. According to North Carolina, The State of Aviation, (2021) Charlotte/Douglas International Airport (CLT) had over 50 million passengers in 2021. Charlotte/Douglas International Airport is the GHMPO region's closest commercial service hub airport.

Piedmont Triad International (GSO) and Asheville Regional (AVL) airports also offer commercial airline service. GSO had 2.2 million passengers in 2021; Asheville had 1.6 million. Concord Regional Airport also provides limited commercial airline service (260,000 passengers).

In addition to regular commercial airline service for passengers, airlines at CLT, GSO and RDU provide cargo service using dedicated cargo aircraft. Unlike passenger aircraft that carry "belly freight" in the baggage compartments under the aircraft floor, cargo aircraft are specifically designed (or modified) to carry large freight shipments.

According to North Carolina, The State of Aviation (2021), the Hickory Regional Airport is ranked 7th in North Carolina for total air cargo tonnage. Hickory Regional Airport's 100 tons of air cargo was listed just after Statesville Regional Airport (230 tons).

GHMPO Aviation Facilities

Two airports in the GHMPO region are publicly owned, and can support both passengers and air freight: Foothills Regional Airport and Hickory Regional Airport. Hickory Regional Airport is the larger of the 2 airports, with a control tower and 2 runways.

Just off of US 321 and less than four miles from the interchange of US 321 and Interstate 40, the Hickory Regional Airport is owned and operated by the City of Hickory.

While Hickory can accommodate aircraft such as Boeing 737s, military C-130s, large private jets and other aircraft of similar size, prior landing permission is required for these aircraft types. At 6,400 feet in length, the airport's main runway is long enough to land these aircraft (depending on the weight of each aircraft, its cargo and time of year). However, regularly scheduled operations of these heavier aircraft would damage the runway and taxiway system.

Foothills Regional Airport's close proximity to both Lenoir and Morganton give it unique advantages for the provision of passenger and freight service. Foothills Regional Airport's 5,500 foot runway can accommodate some larger aircraft (private/corporate jets, etc.).

The airport is governed by the Foothills Regional Airport Authority, which is comprised of elected officials from the cities of Morganton and Lenoir, and the counties of Burke and Caldwell. The cities of Morganton and Lenoir and the counties of Burke and Caldwell help fund the airport.

Fixed Base Operations:

Both Foothills Regional Airport and Hickory Regional airports provide Fixed Base Operator (FBO) services. FBOs provide jet fuel, AvGas, flight planning stations for pilots, pilot lounges and aircraft maintenance services.

FBOs are important assets for both the airports (revenue generated from fuel sales and maintenance activity) and for pilots (FBOs provide opportunities for crew rest, flight planning activities, and are often the first impression visitors experience when arriving in the region).

Based Aircraft:

Based aircraft are general aviation aircraft that are stored at an airport either in hangars or on tie-down spaces. The number and types of based aircraft at an airport can serve as a measure of an airport's local corporate, business, and leisure flight activity.

Aircraft Operations:

An aircraft operation refers to either a takeoff or a landing. Airports track the number of operations on a monthly and annual basis in order to measure overall demand and monitor the types of aircraft using the facility.

Airport	Based Aircraft	Aircraft Operations	
Foothills Regional Airport	59	47/day*	
Hickory Regional Airport	73	81/day**	

^{* 12-}month period ending August 29th 2020.

^{**12-}month period ending December 31, 2021.

Airport Planning

The number of based aircraft at an airport fluctuates frequently due to changing economic conditions, seasonality, and operating costs. An increase in the number of based aircraft at an airport, while desirable, may result in hangar space and aircraft tie-down parking shortages. These shortages could prevent local businesses and pilots from using an airport, forcing them to rely on less convenient facilities. A careful balance must be struck when evaluating the need for additional hangars and aircraft parking spaces. Achieving a balance between hangar/parking space supply and demand is made more challenging because of the aviation sector's susceptibility to fluctuations in the economy.

Since based aircraft are taxed locally, revenue streams can be significantly impacted by an increase or decrease in the number of based aircraft at an airport. Corporate aviation departments are often the first to be cut back at the onset of a recession or economic downturn, which may lead to reductions in fleet sizes and hangar lease cancellations. Conversely, during periods of economic growth, the overall aviation sector also experiences growth - often leading to pressure to expand hangar space.



Importantly, an increase in the number of based aircraft also leads to increased rents and tax revenue for an airport, and can imply increased local economic activity.

An increase in aircraft operations leads to increased wear and tear on an airport's runway, taxiway and ramp system.

Wear and tear can result from an increase in the number of historically similar aircraft types using an airport or because of a change in the mix

of aircraft types (i.e. heavier and larger aircraft) using the airport.

However, an increase in wear and tear can also occur even if the number of aircraft operations decreases or remains the same – but the mix of aircraft types using the airport becomes larger and heavier.

An increase in airport operations can also lead to increased fuel sales, a primary source of revenue for Hickory and Foothills Regional airports. Like the number of based aircraft, an increase in fuel sales can also imply an increase in local economic activity.

Current and Future Airport Projects:

Foothills Regional Airport is planning several future projects, including a partial parallel taxiway extension to eliminate the need for aircraft to use the runway for back taxiing purposes; a 500-foot extension of Runway 21 and additional hangars. The airport's waiting list for hangar space has grown to 61 individuals seeking space for their aircraft. The lack of ability to accommodate additional aircraft hinders economic development and limits the airport's ability to generate revenue to support operations. In addition, the airport is surrounded by several thousand acres of land that could potentially be developed into an industrial park.

NCDOT's 2024 – 2033 Draft State Transportation Improvement Program (STIP) includes project. The 2018-2027 GHMPO MTIP includes project AV-5741 at Hickory Regional Airport, which consists of a 600-foot Extension of Runway 6/24 – Phase I and II. Construction is scheduled to begin in 2024. Extending the runway will allow some larger aircraft to operate at the airport while also making it easier for heavier aircraft to take off during the hot summer months. The draft STIP also includes project AV-5752, for land acquisition and obstruction removal. Right of way acquisition is scheduled for 2026. In addition, Hickory Regional Airport is scheduled to take delivery of 12 T-hangars for general aviation aircraft in fall 2022. Runway 1/19 will be closed to accommodate the placement of the T-hangars.

Both airports – while accessible – are reachable using smaller 2 lane roads. Future development at each airport will likely require road access improvements.

Airport Master Plan/Airport Layout Plan:

The FAA's AIP Sponsor Guide describes an airport master plan as an airport's blueprint for long term development. Some of the goals of a master plan are to:

- Provide a graphic representation of existing airport features, future airport development and anticipated land use.
- Establish a realistic schedule for implementation of the proposed development
- Identify a realistic financial plan to support the development
- Validate the plan technically and procedurally through investigation of concepts and alternatives on technical, economic and environmental grounds.
- Prepare and present a plan to the public that adequately addresses all relevant issues and satisfies local, state and federal regulations.
- Establish a framework for a continuous planning process.

The Federal Aviation Administration (FAA) states that "The term 'Master Plan' is a term of art, and means different things to different organizations and individuals. However, of the related terms (Master Plan, Master Plan Update, ALP Update), all have this in common: "...the primary deliverable is an updated Airport Layout Plan (ALP).....focused on the future development needs of the airport." NCDOT summarizes the five primary functions of the ALP in the box below.

The Five Primary Functions of the ALP

- 1. Required for state and federal funding
- 2. Guideline for future development
- 3. Record of aeronautical requirements
- 4. Assist with financial planning for improvements and airspace protection
- 5. Provide a working tool for Sponsor

--NCDOT Division of Aviation.

Airport Project Funding Sources:

As discussed in the 2016 North Carolina Program Guidance Handbook, State funding is used to fund three overarching categories of airport projects:

- 1.) Safety/Regulatory/Operations Projects (NCDOT Highway Fund).
 - Land acquisition for approach requirements (Clearing, Runway Protection Zone/Safety Area)
 - Pavement expansions to bring airport up to System Plan Objectives
 - Airfield maintenance buildings
 - Navigation and airfield lighting & signage
 - Pavement overlay and rehabilitation
 - Fencing
- 2.) Capital Improvement Projects Airport (NCDOT Highway Trust Fund STI; for projects that expand airport capacity and/or alleviate congestion).
 - Land acquisition for runway development projects
 - Major pavement expansions for runway development projects
 - New buildings (terminal or hangars)
 - Projects that exceed the System Plan objectives and goals
 - New airports
 - Fuel facilities
- 3.) Statewide Programs.
 - Pavement marking, pavement sealing, crack sealing, shoulder grading, ditch cleaning, and tree removal
 - Wildlife Hazard Management Program
 - Weather reporting (AWOS)

Chart X-X. State Airport Project Funding Summary.

	PROJECT FOCUS	AIRPORT TYPE	DEFINITION	FUNDING AVAILABLE
STATEWIDE MOBILITY (4 airports)	Address Significant Congestion	Commercial Service Airports included in NPIAS	International Service or 375,000 annual enplanements (CLT, RDU, GSO, ILM, AVL)	\$500,000 per airport per project per year
REGIONAL IMPACTS (6 airports)	Improve Connectivity within Regions	Commercial Service Airports included in NPIAS	Not included in "Statewide Mobility" (OAJ, EWN, JQF, PGV, FAY)	\$300,000 per airport per project per year
DIVISION NEEDS (62 airports)	Address Local Needs	General Aviation Airports included in NPIAS	Not included under "Statewide Mobility" or "Regional Impacts"	Statewide total not to exceed \$18,500,000 per year

Source: North Carolina Division of Aviation, North Carolina Airports Program Guidance Handbook, 2016.

Aviation Recommendations:

The GHMPO recognizes the importance of collaboration in developing projects that will benefit the region's airports – and the area's wider transportation system. Both Foothills Regional Airport and Hickory Regional Airport are vital to the region's transportation infrastructure and its future economic development.

- 1. Continue to work with Foothills Regional Airport and Hickory Regional Airport to identify and prioritize improvement projects, focusing on safety and capacity improvements.
- 2. Identify funding sources for improvement projects.
- 3. Work with each airport to improve roadway accessibility.

August 2022 Progress Report for Division 12 Projects in GHMPO

Active Construction Projects

Contract/ TIP #	County	Route	Project Description	Status	% Complete
R-5870/ DL00202	Alexander	Industrial Access Road	Construct access road into Alexander Industrial Park from White Plains Road to W.E. Baab Road (0.492 miles). Project funded with Appalachian Regional Commission funds awarded through EDC grant application.	Underway. Grading work is continuing. Nearing Completion.	96.1%
DL00220	Alexander	SR 1347 (Old NC 90) and Duck Creek	Bridge Replacement.	Project Complete.	100.0%
DL00257	Alexander	SR #'s 1101, 1102, 1103, 1107, 1128, 1134, 1135, 1152	Resurfacing for 9.14 miles.	Underway.	34.4%
R-3100 A & B/ C203800	Catawba	NC 16	Widen from 2 to 4 lanes A section from SR 1859 (Tower Road) to SR 1814 (Caldwell Rd) B section from SR 1814 (Caldwell Rd) SR 1801 (Claremont Road).	Underway. Traffic switched to outside lanes so work on the inside can be completed. Project is in Phase III on A and B sections. Final paving and grading is ongoing. Project completion expected before the end of September 2022.	90.0%
C204403	Catawba	Various	Paving - one section of NC 127, one section of NC 10, three sections of NC 16 Bus and 26 sections of secondary roads. Total length 40.289 miles.	Underway.	87.0%
DL00209		US 7- at SR 1476 (Fairgrove Church Rd)	Safety Improvements.	Project Complete.	100.0%
DL00234	Catawba	Various Secondary Roads	Resurfacing for 22.05 miles.	Underway.	33.6%
DL00242		Bridge No 57 on SR 1002 (Old Shelby Road)	Bridge Replacement.	Underway.	6.8%
DL00254	Catawba	Intersection of US 70 and SR 2375 (Bumgarner Industrial Dr)	Signal Replacement.	Underway.	15.9%
DL00227	Catawba and Lincoln	Various Secondary Roads	Resurfacing for 23.73 miles.	Underway.	52.5%

Active Projects Under Development

Contract/ TIP #	County	Route	Project Description	Status	% Complete
U-4700 A	Catawba	US 321	Widen to six lanes from north of US 70 in Hickory to US 321A. Length 3.2 miles.	Right-of-Way acquisition underway. Work on multiple disciplines also underway. The projected schedule for Construction in 2025.	NA
U-5777	Catawba	NC 127	Add turn lanes from 1st Ave SE to 2nd Ave SE.	Redesigning to shorten turn lane to reduce impacts to adjacent properties and reducing vertical profile to save cost and facilitate constructability. Let date revised to September 2024	NA
B-5847	Catawba	SR 1709 (Rock Barn Road)	Replace Bridge 170173 over I-40.	The projected schedule for Right of Way and Construction is in FY 2023 and FY 2024 respectively. Public Meeting held on July 12, 2022 in Conover. The project proposes roandabout at the ramp terminals and also considering a multiuse path and sidewalks over I-40.	NA

Note: Right of Way and Construction Schedules shown are from the Draft 2024-2033 STIP.